Amendments to the Claims:

1. (Currently Amended) A system for performing surgical procedures and assessments, comprising:

a surgical accessory having at least one stimulation electrode; and

a processing system having at least one of computer programming software, firmware and hardware pre-programmed to incorporate at least two pre-selected threshold ranges, and capable of stimulating said at least one stimulation electrode on a surgical accessory with an electrical stimulation signal, measuring the response of nerves depolarized by said stimulation signal, automatically determining a stimulation threshold of said nerves by automatically adjusting said stimulation signal by variable increments, ~~a relationship between the surgical accessory and the nerve based upon the response measured, and communicating said relationship to a user, wherein said relationship may be used~~ and communicating to a user which range of said at least two pre-selected ranges that said stimulation threshold lies to ~~determine~~ indicate at least one of nerve proximity~~, nerve direction,~~ and pedicle integrity~~, and neural pathology~~.

2. (Original) The system set forth in claim 1 and further, wherein the response of said depolarized nerves is measured by monitoring the EMG waveforms of myotomes associated with said depolarized nerves.

3. (Original) The system set forth in claim 2 and further, wherein said surgical accessory comprises a system for establishing an operative corridor to a surgical target site.

4. (Original) The system set forth in claim 3 and further, wherein said system for establishing an operative corridor to a surgical site includes a series of sequential dilator cannulae, each having at least one stimulation electrode near a distal end.

5. (Original) The system of claim 3 and further, wherein said surgical target site is a spinal target site.

6. (Original) The system of claim 5 and further, wherein said operative corridor may be established via a lateral, trans-psoas approach.

7. (Original) The system set forth in claim 1 and further, wherein said surgical accessory comprises a pedicle testing device including a handle and a pedicle probe.

8. (Original) The system set forth in claim 7 and further wherein said pedicle testing device is capable of testing at least one of the interior of a hole formed in a pedicle and a pedicle screw after insertion into said hole.

9. (Original) The system set forth in claim 8 and further, wherein said handle includes at least one button for initiating the transmission of said stimulation signal from said processing system to said pedicle probe.

10.- 12. (Canceled)

13. (New) The system set forth in claim 1 and further, wherein said system includes a display for communicating said at least one of nerve proximity and pedicle integrity.

14. (New) The system set forth in claim 13 and further, wherein said display is configured to show at least one of alpha-numeric and graphic indicia related to said at least one of said nerve proximity and pedicle integrity.

15. (New) The system set forth in claim 14 and further, wherein said display shows a color indicative of at least one of said nerve proximity and pedicle integrity.

16. (New) The system set forth in claim 1 and further, wherein said system is configured to audibly communicate said at least one of nerve proximity and pedicle integrity.

17. (New) The system set forth in claim 1 and further, wherein said at least two pre-selected threshold ranges comprise a safe range and an unsafe range.

18. (New) The system set forth in claim 17 and further, wherein said system comprises three pre-selected threshold ranges.

19. (New) The system set forth in claim 18 and further, comprising a cautionary range in-between said unsafe and safe ranges.

20. (New) The system set forth in claim 19 and further, wherein one of the colors red, yellow, and green, are highlighted on a display to communicate the appropriate range of said determined stimulation threshold.

21. (New) The system set forth in claim 20 and further, wherein the color red indicates said unsafe range, the color yellow indicates said cautionary range, and the color green indicates said safe range.

22. (New) The system set forth in claim 1 and further, wherein automatically adjusting said stimulation signal by variable increments comprises doubling the amplitude of successive stimulation signals until a corresponding nerve response measures at least a preselected intensity level.

23. (New) The system set forth in claim 22 and further, wherein automatically adjusting said stimulation signal by variable increments further comprises decreasing the amplitude of

subsequent stimulation signals until a corresponding nerve response measures below said preselected intensity level.

24. (New) The system set forth in claim 22 and further, wherein the amplitude of said first stimulation signal to evoke said corresponding nerve response of at least a preselected intensity level and the immediately preceding stimulation signal comprise an initial bracket.

25. (New) The system set forth in claim 24 and further, wherein said initial bracket is bisected to a pre-selected width.

26. (New) The system set forth in claim 1 and further, wherein said system is configured to automatically adjust said stimulation signal according to at least one of a bracketing method and a bisection method.

27. (New) The system set forth in claim 26 and further, wherein said system is configured to first determine a bracket within which said stimulation threshold must lie and thereafter to bisect said bracket until said stimulation threshold is known to a specified accuracy.

28. (New) The system set forth in claim 27 and further, wherein said system may determine whether said stimulation threshold has changed by stimulating said at least one stimulation electrode at a stimulation current just below said previously determined stimulation threshold and at least one of at and just above said previously determined stimulation threshold.